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Lunden et al.(10) **Pub. No.: US 2015/0011218 A1**(43) **Pub. Date: Jan. 8, 2015**(54) **HOME BASE STATION MANAGEMENT
USING EXTENDED CLOSED SUBSCRIBER
GROUP ACCESS**(57) **ABSTRACT**(75) Inventors: **Jari Petteri Lunden**, Espoo (FI); **Elena
Virtej**, Espoo (FI)(73) Assignee: **Nokia Corporation**, Espoo (FI)(21) Appl. No.: **14/375,403**(22) PCT Filed: **Feb. 22, 2012**(86) PCT No.: **PCT/US2012/026626**§ 371 (c)(1),
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The application relates to managing interference at the user equipment caused by femtocell base stations, such as home base stations, home E-UTRAN Node B base stations, and the like, configured with closed subscriber groups by allowing the user equipment to access a femtocell base station which would normally not allow access to the user equipment because the user equipment is not a member of the CSG being served by the femtocell base station. When a user equipment is within range of HeNB serving a CSG cell to which the user equipment is allowed access, referred to as the “allowed HeNB”, the user equipment may encounter severe interference from another, adjacent HeNB serving another CSG cell, which the user equipment may not be allowed access to, referred to as the “not allowed HeNB”, and which may have a stronger signal in terms of power than the HeNB including the CSG to which access is allowed. Rather than to allow the user equipment (114) to access the allowed HeNB (CSG HeNB 1) to which it is a subscriber by virtue of the CSG, the application proposes to instead allow the user equipment (114) to access the adjacent, not allowed HeNB (CSG HeNB 2) serving the other CSG cell, which the user equipment is not allowed to access by virtue of the user equipment not being a member/subscriber of the other CSG.

